

What is claimed is:

1. An electrochemical cell, which comprises:

- 5 a) a casing comprising a sidewall extending to an open end thereof;
- b) a first electrode comprising first and second portions, wherein the first portion comprises a first current collector having first and second major sides supporting a first electrode active material, and wherein the second portion comprises the first electrode active material supported on an inner surface of the casing sidewall serving as a first terminal for the first electrode;
- 10 c) a second, counter electrode comprising a second current collector having third and fourth major sides supporting a second electrode active material, wherein the second electrode is connected to a second terminal electrically insulated from the first terminal;
- d) a separator segregating the first and second electrodes from each other;
- 15 e) an electrolyte provided in the casing to activate the first and second electrodes; and
- 20 f) a lid closing the open end of the casing.

2. The electrochemical cell of claim 1 wherein the first electrode is an anode electrode providing the cell having a case-negative design.

3. The electrochemical cell of claim 1 wherein the first electrode is a cathode electrode providing the cell having a case-positive design.

5 4. The electrochemical cell of claim 1 wherein the casing comprises spaced apart sidewalls and wherein the second portion of the first electrode comprises the first electrode active material supported on an inner surface of at least one of the spaced apart casing sidewalls.

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5. An electrochemical cell, which comprises:

- a) a casing comprising a sidewall extending to an open end thereof;
- b) an anode electrode comprising first and second anode portions, wherein the first anode portion comprises a anode current collector having first and second major sides supporting an anode active material, and wherein the second anode portion comprises the anode active material supported on an inner surface of the container serving as a terminal for the anode electrode;
- c) a cathode electrode comprising a cathode current collector having third and fourth major sides supporting a cathode active material, wherein the cathode is connected to a cathode terminal electrically insulated from the anode terminal;
- d) a separator segregating the anode electrode from the cathode electrode;
- e) an electrolyte provided in the casing to activate the anode and cathode electrodes; and

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f) a lid closing the open end of the casing.

6. The electrochemical cell of claim 5 wherein the anode and cathode electrodes are associated with each other in
5 either a jellyroll or a prismatic electrode design.

7. The electrochemical cell of claim 5 wherein anode active material is lithium.

10 8. The electrochemical cell of claim 5 wherein the cathode active material is selected from the group consisting of silver vanadium oxide, copper silver vanadium oxide, CF_x , C_2F , V_2O_5 , MnO_2 , $LiCoO_2$, $LiNiO_2$, $LiMn_2O_4$, TiS_2 , Cu_2S , FeS , FeS_2 , Ag_2O , Ag_2O_2 , CuF_2 , Ag_2CrO_4 ,
15 copper oxide, copper vanadium oxide, and mixtures thereof

9. The electrochemical cell of claim 5 wherein the electrolyte comprises at least one nonaqueous solvent selected from the group consisting of tetrahydrofuran,
20 methyl acetate, diglyme, triglyme, tetraglyme, dimethyl carbonate, 1,2-dimethoxyethane, 1,2-diethoxyethane, 1-ethoxy,2-methoxyethane, ethyl methyl carbonate, methyl propyl carbonate, ethyl propyl carbonate, diethyl carbonate, dipropyl carbonate, propylene carbonate,
25 ethylene carbonate, butylene carbonate, acetonitrile, dimethyl sulfoxide, dimethyl formamide, dimethyl acetamide, γ -valerolactone, γ -butyrolactone, N-methyl-pyrrolidinone, and mixtures thereof.

10. The electrochemical cell of claim 5 wherein the electrolyte includes a lithium salt selected from the group consisting of LiPF₆, LiBF₄, LiAsF₆, LiSbF₆, LiClO₄, LiO₂, LiAlCl₄, LiGaCl₄, LiC(SO₂CF₃)₃, LiN(SO₂CF₃)₂, LiSCN, 5 LiO₃SCF₃, LiC₆F₅SO₃, LiO₂CCF₃, LiSO₆F, LiB(C₆H₅)₄ and LiCF₃SO₃, and mixtures thereof.

11. A method for providing an electrochemical cell, comprising the steps of:

- 10 a) providing a casing comprising a sidewall extending to an open end thereof;
- b) providing a first electrode comprising first and second portions, including the steps of:
 - i) supporting a first electrode active material on first and second major sides of a first current collector to provide the first portion of the first electrode; and
 - 15 ii) supporting the first electrode active material on an inner surface of the casing sidewall to provide the second portion of the first electrode, the casing serving as a first terminal for the first electrode;
- 20 c) supporting a second electrode active material on third and fourth major sides of a second current collector, wherein the second electrode is connected to a second terminal electrically insulated from the first terminal;
- 25 d) segregating the first and second electrodes from each other with a separator;

- e) activating the first and second electrodes with an electrolyte provided in the casing; and
- f) closing the open end of the casing with a lid.

5 12. The method of claim 11 wherein the first electrode is an anode electrode providing the cell having a case-negative design.

10 13. The method of claim 11 wherein the first electrode is a cathode electrode providing the cell having a case-positive design.

15 14. The method of claim 11 wherein the casing comprises spaced apart sidewalls and wherein the second portion of the first electrode comprises the first electrode active material supported on an inner surface of at least one of the spaced apart casing sidewalls.